

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 30 March 2001 (30.03.01)	
International application No. PCT/JP00/04760	Applicant's or agent's file reference IH-115
International filing date (day/month/year) 14 July 2000 (14.07.00)	Priority date (day/month/year) 16 July 1999 (16.07.99)
Applicant OGAWA, Munekazu et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
 16 February 2001 (16.02.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Kiwa Mpay Telephone No.: (41-22) 338.83.38
---	---

10/030625 (8835)

PATENT COOPERATION TREATY

PCT

REC'D 07 SEP 2001

WIPO PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

6

Applicant's or agent's file reference IH-115	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP00/04760	International filing date (day/month/year) 14/07/2000	Priority date (day/month/year) 16/07/1999
International Patent Classification (IPC) or national classification and IPC A01N43/50		
Applicant ISHIHARA SANGYO KAISHA, LTD. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 6 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 16/02/2001	Date of completion of this report 04.09.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Bertrand, F Telephone No. +49 89 2399 8606



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/JP00/04760

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):
Description, pages:

1-18 as originally filed

Claims, No.:

1-3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/JP00/04760

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

see separate sheet

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☒ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:

- ☐ complied with.
- ☒ not complied with for the following reasons:
see separate sheet

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
- ☐ the parts relating to claims Nos. .

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims
	No: Claims 1-3
Inventive step (IS)	Yes: Claims
	No: Claims 1-3
Industrial applicability (IA)	Yes: Claims 1-3
	No: Claims

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/JP00/04760

2. Citations and explanations
see separate sheet

Re Item I

Basis of the report

The documents mentioned in this International Preliminary Examination Report are numbered in accordance with the order they appear in the International Search Report.

Re Item IV

Lack of unity of invention

The International Preliminary Examining Authority fully agrees with the International Searching Authority's findings that found multiple inventions are claimed in this international application, as follows:

invention 1: Pesticidal composition and method using an imidazole derivative of formula (I) according to claim 1 and (S)-5-methyl-2-methylthio-5-phenyl-3-phenylamino-3,5-dihydroimidazole-4-one.

invention 2: Pesticidal composition and method using an imidazole derivative of formula (I) according to claim 1 and isopropyl 2-methyl-1-[(1-p-tolylolethyl)carbamoyl]-(S)-propylcarbamate.

invention 3: Pesticidal composition and method using an imidazole derivative of formula (I) according to claim 1 and 3,5-dichloro-N-(3-chloro-1-ethyl-1-methyl-2-oxopropyl)-4-methylbenzamide.

invention 4: Pesticidal composition and method using an imidazole derivative of formula (I) according to claim 1 and N-(alpha-cyano-2-thienyl)-4-ethyl-2-(ethylamino)-5-thiazole carboxamide.

Each of the present claims 1-3 relates to all 4 inventions. The linking concept between the four listed inventions is the synergistic use of a compound of formula (I) with four different active ingredients. WO 99 / 27788 discloses a mixture of a compound according to a general formula (I), preferably (S)-5-methyl-2-methylthio-5-phenyl-3-phenylamino-3,5-dihydroimidazole-4-one, with an other compound called (IIH), which is 4-chloro-2-cyano-1-dimethylsulfamoyl-5-(4-methylphenyl)imidazole. The former corresponds to the first of four

synergists listed in present claim 1 and the latter corresponds to the preferred compound No.1 of the general formula (I) according to the present invention. The requisite unity of invention (Rule 13.1 PCT) therefore no longer exists inasmuch as a technical relationship involving one or more of the same or corresponding special technical features in the sense of Rule 13.2 PCT does not exist between the four above-listed inventions. The Applicant having paid all the further examination fees, the present opinion will take into consideration all 4 inventions.

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

As to invention 1: D1 anticipates present claims 1-3.

As to inventions 2 and 3: the cited prior art does neither disclose nor suggest a synergistic combination as presently claimed. These 2 inventions can be considered to be new and non-obvious.

As to invention 4: D6 discloses a synergistic combination of 2 families of compounds, encompassing the present invention 4. For the disclosed example, the authors of D6 selected 2 compounds which are different from the presently claimed ones. Novelty can thus be acknowledged. However, one skilled in the art would have expected the pesticidal, synergistic effect of the present invention 4. No surprising effect with respect to D6 having been substantiated so far, the selection made with the present invention 4 is regarded as arbitrary. The technical problem underlying invention 4 being to provide an alternative to the prior art, it is considered as solved in an obvious manner.

Therefore, the present application does not fulfill the criteria of Article 33(2)-(3) PCT, insofar as the subject-matter of the present claims 1-3 is not new with respect to the prior art as defined in Rule 64(1) to (3) PCT and does not involve an inventive step (Rule 65(1) and (2) PCT).

The present invention fulfills the criteria of Article 33(4) PCT, because the subject-matter of the present claims 1-3 is industrially applicable.

10/030685

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 00/04760

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A01N43/50 //(A01N43/50, 47:12, 43:78, 43:50, 37:18)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 27788 A (LATORSE MARIE PASCALE ;MERCER RICHARD (FR); CHAZALET MAURICE (FR);) 10 June 1999 (1999-06-10) cited in the application page 2 -page 3 page 6, line 23 - line 25 page 11, line 27 - line 35	1-3
A	WO 96 03044 A (RHONE POULENC AGROCHIMIE ;LATORSE MARIE PASCALE (FR)) 8 February 1996 (1996-02-08) the whole document	1-3
A	EP 0 639 574 A (LUCKY LTD) 22 February 1995 (1995-02-22) table 1 entry #37	1-3
	-/--	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

29 January 2001

Date of mailing of the international search report

06.02.01

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Bertrand, F

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP 00/04760

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 753 258 A (ROHM & HAAS) 15 January 1997 (1997-01-15) claims 1,5 -----	1-3
A	WO 99 11125 A (NOVARTIS ERFIND VERWALT GMBH ;GSELL BETTINA (CH); NOVARTIS AG (CH)) 11 March 1999 (1999-03-11) the whole document -----	1-3
X	PATENT ABSTRACTS OF JAPAN vol. 016, no. 443 (C-0985), 16 September 1992 (1992-09-16) & JP 04 154704 A (SUMITOMO CHEM CO LTD), 27 May 1992 (1992-05-27) abstract -----	1-3

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 00/04760

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9927788 A	10-06-1999	PL 334555 A	13-03-2000
		ZA 9711153 A	11-06-1999
		AU 9604898 A	16-06-1999
		BG 102506 A	30-12-1999
		BR 9712240 A	31-08-1999
		CZ 9801893 A	13-10-1999
		EP 0973397 A	26-01-2000
		SK 83898 A	11-02-1999
WO 9603044 A	08-02-1996	FR 2722652 A	26-01-1996
		AT 196977 T	15-11-2000
		AU 700287 B	24-12-1998
		AU 3080595 A	22-02-1996
		BG 101231 A	28-11-1997
		BR 9508792 A	30-12-1997
		CA 2192989 A	08-02-1996
		CZ 9700180 A	16-04-1997
		DE 69519170 D	23-11-2000
		EG 20395 A	28-02-1999
		EP 0773720 A	21-05-1997
		HU 77234 A, B	02-03-1998
		JP 10503192 T	24-03-1998
		NZ 290153 A	25-02-1999
		PL 318328 A	09-06-1997
		RO 114863 B	30-08-1999
		SK 8697 A	10-09-1997
		TR 960082 A	21-06-1996
		US 6075042 A	13-06-2000
		US 5906986 A	25-05-1999
		ZA 9505935 A	20-02-1996
EP 0639574 A	22-02-1995	DE 69410894 D	16-07-1998
		DE 69410894 T	10-12-1998
		DK 639574 T	12-10-1998
		JP 2614700 B	28-05-1997
		JP 7089946 A	04-04-1995
		KR 124552 B	08-12-1997
		US 5514643 A	07-05-1996
EP 0753258 A	15-01-1997	AT 177287 T	15-03-1999
		AU 721611 B	13-07-2000
		AU 5622796 A	23-01-1997
		BR 9603042 A	22-04-1998
		CA 2180225 A	13-01-1997
		CN 1145722 A	26-03-1997
		DE 69601666 D	15-04-1999
		DE 69601666 T	21-10-1999
		DK 753258 T	27-09-1999
		ES 2128821 T	16-05-1999
		GR 3029653 T	30-06-1999
		JP 2999962 B	17-01-2000
		JP 9124413 A	13-05-1997
		KR 248185 B	01-04-2000
WO 9911125 A	11-03-1999	AU 9437398 A	22-03-1999
		BR 9812022 A	26-09-2000
		CN 1268025 T	27-09-2000
		EP 1006795 A	14-06-2000

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/JP 00/04760

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9911125 A		PL 337992 A SK 2492000 A ZA 9807840 A	25-09-2000 11-07-2000 01-03-1999
JP 04154704 A	27-05-1992	NONE	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP 00/04760

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-3 (all partly)

Pesticidal composition and method using an imidazole derivative of formula (I) according to claim 1 and (S)-5-methyl-2-methylthio-5-phenyl-3-phenylamino-3,5-dihydroimidazole-4-one.

2. Claims: 1-3 (all partly)

Pesticidal composition and method using an imidazole derivative of formula (I) according to claim 1 and isopropyl 2-methyl-1-[(1-p-tolyloethyl)carbamoyl]-(S)-propylcarbamate.

3. Claims: 1-3 (all partly)

Pesticidal composition and method using an imidazole derivative of formula (I) according to claim 1 and 3,5-dichloro-N-(3-chloro-1-ethyl-1-methyl-2-oxopropyl)-4-methylbenzamide.

4. Claims: 1-3 (all partly)

Pesticidal composition and method using an imidazole derivative of formula (I) according to claim 1 and N-(alpha-cyano-2-thienyl)-4-ethyl-2-(ethylamino)-5-thiazole carboxamide.